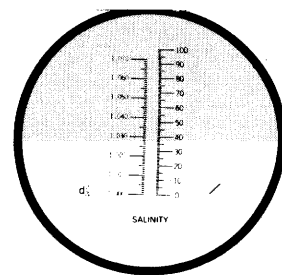


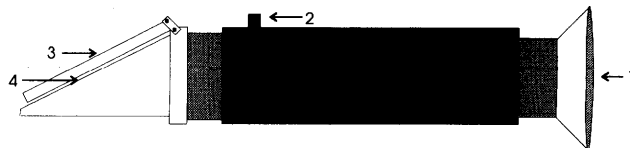
# A366ATC Operation Manual

Hand Held Salinity Refractometer with  
Automatic Temperature Compensation  
(0-10%, and 1.000 to 1.070 specific gravity of Salt Water)



## PARTS OF THE INSTRUMENT

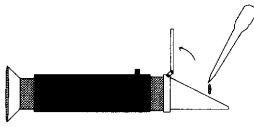
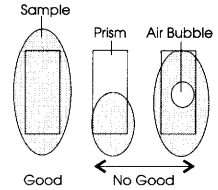
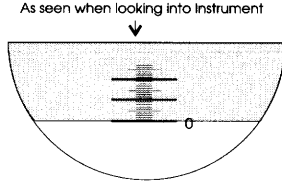

1. eyepiece
2. zero adjustment screw
3. daylight plate
4. prism



## SCALE CALIBRATION

The very first thing you should do before applying the actual sample solution to the refractometer prism glass is to calibrate the instrument to assure precision accuracy. It is done by performing the following:

Using a drop of distilled water, apply it to the prism glass as shown below, close the cover gently, look through the viewfinder (eyepiece) and check to see that 0% (or 1.000). If the boundary line between the colored and white fields intersects the scale anywhere but exactly 0% (1.000), adjust the boundary line back to 0% (1.000) by turning the zero adjusting screw.

 <p>1. Place one drop of distilled water or the calibration solution on the prism and close the daylight plate</p>	 <p>2. Make sure the sample covers the entire surface of the prism without any air pockets</p>	 <p>3. Looking through the eyepiece check to see that the boundary line falls exactly on the reference point (0% for distilled water as shown in the illustration)</p>	 <p>4. While looking through the eyepiece, use screwdriver to adjust the zero adjustment screw until the boundary line reaches zero.</p>
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## PRECAUTION

- Since the refractometer is an optical instrument, do not drop it or handle it roughly.
- Since the prism has a relatively soft surface, be careful not to scratch it.
- After each use, clean the prism surface and daylight plate with a soft cloth soaked in water and wipe off with a dry cloth.
- Do not hold the prism directly in a water stream of a water pipe, etc.
- If the prism surface is smeared with oil or similar liquids, it will repel the sample and obstruct the measurement. Wipe off the oil smear or contaminant with weakened detergent or suitable solvent.

## HOW TO USE THE REFRACTOMETER

1. Open the daylight plate and apply one or two drops of a sample solution onto the prism surface.
2. Close the daylight plate gently. Then, the sample solution spreads into a thin film in between the daylight plate and the prism. Make sure the prism is completely covered and there are no air bubbles.
3. Hold the refractometer with the daylight plate facing upward, direct it toward the light and observe the field of view through the eyepiece. If the field of view is not clear, focus the image by turning the portion closest to your eye.
4. The upper field of view appears blue and the lower field appears white. Read the scale where the boundary line of the blue and white fields cross the scale. The scale reads in both parts per thousand and specific gravity of salt water.